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BTECH
(SEM VII) THEORY EXAMINATION 2023-24
CLOUD COMPUTING

TIME: 3 HRS**M.MARKS: 70**

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A**1. Attempt all questions in brief.****2 x 7 = 14**

a.	Contrast parallel computing and distributed computing.
b.	What is IaaS, PaaS, and SaaS?
c.	What is VM network routing?
d.	What are security services in the cloud?
e.	Describe use of HDFS and Namenode in Hadoop.
f.	List the functional models of GAE.
g.	List layers used in layered cloud architecture.

SECTION B**2. Attempt any three of the following:****7 x 3 = 21**

a.	What do you mean by cloud federation? Explain the four levels and future of federation in detail.
b.	What is cloud security? Explain IAM and its advantages and disadvantages.
c.	How does an unauthorized access can be detected by the help of virtualization techniques?
d.	Explain Cloud Computing reference model with diagram.
e.	What is load balancing? What are the advantages of load balancing?

SECTION C**3. Attempt any one part of the following:****7 x 1 = 7**

a.	How Cloud Computing provides scalability and fault tolerance?
b.	Explain Virtual LAN(VLAN) and Virtual SAN (VSAN) in cloud computing.

4. Attempt any one part of the following:**7 x 1 = 7**

a.	Explain virtualization of CPU, Memory and I/O devices in detail.
b.	Contrast the features of Full virtualization with paravirtualization.

5. Attempt any one part of the following:**7 x 1 = 7**

a.	With a neat diagram explain the Cloud computing delivery models and services.
b.	Describe NIST cloud reference architecture.

6. Attempt any one part of the following:**7 x 1 = 7**

a.	What are the different security challenges in cloud computing? Discuss each in brief.
b.	Illustrate the following in detail: 1) Demand-Driven Resource Provisioning 2) Event-Driven Resource Provisioning

7. Attempt any one part of the following:**7 x 1 = 7**

a.	Describe the following in detail: 1) Google Cloud Infrastructure 2) GAE Architecture
b.	Give elaboration of cloud federation stack and explain it in detail.